

# COUNTRY LIFE

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VOL. XLIII.—No. 1108.

SATURDAY, MARCH 30th, 1918.

PRICE ONE SHILLING, POSTAGE EXTRA.  
REGISTERED AT THE G.P.O. AS A NEWSPAPER.



SPEIGHT.

LADY GWENDOLEN GUINNESS.

157 New Bond Street W.

# COUNTRY LIFE

THE JOURNAL FOR ALL INTERESTED IN  
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•• We appeal to our readers to send their copies of recent issues of COUNTRY LIFE to the TROOPS AT THE FRONT. This can be done by simply handing them over the counter of any Post Office. No label, wrapper or address is needed and no postage need be paid.

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## Two-and-a-Half Million Acres of Winter Wheat

IT is a very great achievement for the British farmers in the fourth year of the war to have got in two and a half million acres of winter wheat. They have done so in the teeth of immense difficulties. Extensive and efficient labour has been scarce. Manure is hard to get. That of the towns continues to diminish owing to the supersession of the horse by mechanical traction, the diminishing number of pleasure horses and the contraction of dairy herds. Artificials are better distributed than before, but organisation cannot increase the total. Some are practically engulfed by the munition factories. Others are rendered, to a large extent, unavailable by failure of transport, a few have suffered from the consequences of new economical methods in the manufacture of those goods of which they are the by-product. This is particularly true of basic slag which has deteriorated in manorial value here as in France. Nor has fortune been

at all overkind in regard to the production of the machinery and implements required for production. Tractor ploughs have often been reduced to idleness by the difficulty in obtaining spare parts. A majority are of American origin, and in such times as we live the Atlantic Ocean is not such a safe highway as it was in times of peace. Nevertheless, the work has been accomplished. And it has been done well. Experienced agriculturists doubted the possibility of arriving at such a result, chiefly because in the early days of the war land was allowed to relapse into such a weedy and foul condition. But this has been changed. For that the weather has been superb. Anyone who, like the writer, has had occasion to make railway journeys of considerable length during the glorious spring must have been cheered to notice the work of cultivation that has been going on apart from ploughing and seed sowing. With harrow, roller and tractor cultivator the most has been made of the fine tilth, and at the same time the foul weeds have been collected and brought to the surface. There they have been dealt with in the old fashioned way, that is to say, collected into heaps, burned, and the ashes strewn over the soil so that the air has been charged with the odour of burning twitch as it used to be in the old days. If there be any truth in the saying which valued a peck of March dust at a king's ransom there has been enough this year to redeem the lost ten tribes.

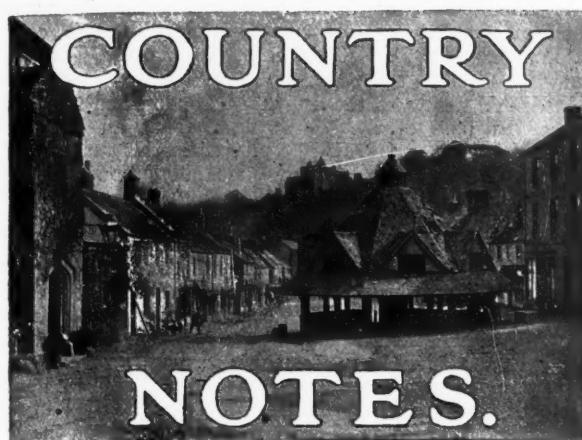
It only remains to carry out the Prime Minister's programme to plant a million acres with potatoes to safeguard the country from the hunger menace which has been hanging over it. We assume, of course, that the sowing of cereals will not be neglected. Oats in particular deserve attention, were it only for the reason that the war has caused a re-discovery of the virtues of oatmeal. Talking to a Devonshire farmer's wife the other day who was telling how her daughter was getting on in her war-work—recently she had been acting as a forage sentinel but had to change her vocation—"she misses her parrich in the new lodgings" quoth the mother. She had doubtless heard the word so pronounced by a Scottish friend and, being up to now ignorant of the dish, thought it must be right. The incident illustrates the fact that rationing has made those acquainted with porridge who never heard of it before. On the tables of high and low it now finds a place, and its wholesome presence we are sure will be retained after the war.

The result of the agricultural push is gratifying, but at this grave moment there will be little disposition to become vocal in thankfulness. It would ill become us to exult at a clearing of the food trouble when the flower of our men are engaged in the grimmest and most terrible struggle of the war, facing mutilation and death in order to ward off the invader. Confident as we feel in the ultimate result there is no escaping the public and private anxiety of the time. But when all is over and peace returns it is to be hoped that no one responsible for the Government of Great Britain and no one engaged in its husbandry will forget the sharp lesson of the war. Not again can we resume the thoughtlessly complacent attitude with which we looked out on our half-tilled fields while content to buy and consume the produce of other lands. Who does not remember the old shibboleth, that indeed had much to recommend it in days when there was a Little Navy Party in the land: "What we pay for warships may be regarded as insurance against failure of our food supply"? It seemed then as though our glorious Navy could keep the world at bay. The advantages of insularity have been so much curtailed by the advance of scientific invention that they must never again be trusted. Political leaders of the future must be responsible for seeing that the State keeps a vigilant watch on the production of food and removes all hindrances to it, while the farmer may, with legitimate attention to his own prospering, have a due regard to those forms of cultivation which help to make the nation self-supporting in regard to food. Nor must the allotment holder, who has done so much, be discouraged or allowed to relax his activity.

## Our Frontispiece

THIS week we print as our frontispiece a portrait of Lady Gwendolen Guinness with her son and elder daughter. Lady Gwendolen Guinness, who recently gave birth to a little daughter, is a daughter of the fourth Earl of Onslow, and was married in 1903 to the Hon. Rupert Guinness, M.P.

\* \* \* It is particularly requested that no permissions to photograph houses, gardens or livestock on behalf of COUNTRY LIFE be granted except when direct application is made from the offices of the paper.



**A**T a time like this it is almost impossible to write or think of any but one subject. Every other topic becomes insignificant in face of the fact that the supreme contest between Militarism, as exemplified in Germany, and Freedom, as cherished in this country, is now taking place. The history of the world might be ransacked in vain for the record of any battle of equal importance. If there is a parallel, it must be found in some of those dimly guessed at struggles where a civilisation had to give way before a barbarian outbreak and the clock of the world was put back for ages. Comment on the event itself cannot be very valuable at this stage in which every day bears the possibility of a new development. Those of us who are at home can only await events in the firm faith and belief that the tenacity of our soldiers and the resolution which has never yet failed them at a critical moment will bring them through this, the most difficult of all their trials. The history of offensives during the war shows the unlikelihood of a great decision being arrived at quickly. The leader who makes up his mind to the necessary sacrifice has almost invariably shown ability to make certain territorial gains at the beginning. All of us remember the confidence of the Germans when they asserted that France was reeling before the heavy blows delivered at Verdun. Yet their exultation was only a preliminary to defeat. What happened then may very well occur again.

**NON-COMBATANTS** at home are undergoing the old and painful experience of watching an encounter in which they can take no direct share. Yet indirectly they can do much to help our troops. After all, this is not so much a battle of armies as a battle of nations, a people arrayed against a people. The first thing we can do is to give the most ungrudging and cordial support to our soldiers; the next is to attend to those duties at home which devolve upon each. It is easy to understand and even excuse anxiety on the part of those who have at heart not only the public welfare, but the safety of those whom they hold most dear. Yet they must remember that worry will not help their friends. They will find far more peace of mind in going about useful tasks and doing something for the country. For example, it would be of very little service to the wounded and fallen to give way to anxiety so much as to neglect the important and necessary work of food production. They may be sure that the men at the front are concentrating the whole of their energy, physical and mental, upon the task of dealing with their foes, and those at home cannot possibly find an example more worthy of being emulated.

**WE** have had a communication from the Director of Agricultural Production, B.E.F., in regard to an article which appeared in our gardening column in our issue of March 2nd, called "Growing Vegetables on the Western Front." The gist of it is to point out that the French authorities are rightly very averse from the breaking up of small plots of grass land in France, and an Order has been promulgated forbidding British troops to do so. In point of fact, this was very far from the mind of our contributor. The letter which he was asked to answer did not refer to the Western front, but to a military garden in this country, where the grass referred to lay within the compound. We are very well aware that the small owners in France do not like their little grass plots cut up, and, as a matter of fact, the cultivation which the British soldiers are doing, or were doing before this offensive, consisted of farm land that had been left bare or uncultivated. There is reason to fear that some of these efforts will be brought

to an untimely end by the initial success of the German offensive, but in any case it would have been much against the grain for us to advocate, or even to appear to advocate, interference in any way with the holdings of the French peasant farmers.

**I**N describing the organisation of the camp at Osterley

Park space was not found for a reference to the driving school. It is one of those useful institutions which are really educating men for work not only during the war, but after it. The word "driving" may suggest to many people carts and horses, but in this instance it refers exclusively to the various types of motor vehicle used for military purposes. These, for the greater part, are of an immense size. Some are familiar enough on the roads of the old country, but those who have not been on a battlefield can form but little idea of the great part which motor transport plays in military operations. That is the simple and direct object of the training, but what strikes one at the camp is that the men who are taught to handle these great motors have acquired a something which will be of immense service afterwards. Whatever the other consequences of the war may be, we know that at any rate it has given an immense impetus to the use of machinery. That applies in almost every direction; the most striking example, of course, is to be found in our munition factories. But in agricultural and kindred callings there is a not less important extension of the use of mechanical contrivances, and the men who have been trained to drive for the Army will find plenty to do in the reconstruction which must follow the establishment of peace.

#### THE SOWER.

*(Eastern France.)*

Familiar, year by year, to the creaking wain  
Is the long road's level ridge above the plain.  
To-day a battery comes with horses and guns  
On the straight road, that under the poplars runs,  
At leisurely pace, the guns with their mouths declined,  
Harness merrily ringing, and dust behind.  
Makers of widows, makers of orphans, they  
Pass to their burial business, alert and gay.

But down in the field, where sun has the furrow dried,  
Is a man who walks in the furrow with even stride,  
At every step, with elbow jerked across,  
He scatters seed in a quick deliberate toss.—  
The immemorial gesture of man confiding  
To earth, that restores tenfold in the season's gliding,  
He is grave and patient, sowing his children's bread,  
He treads the kindly furrow, nor turns his head.

LAURENCE BINYON.

**O**N Sunday the advent of summer time received a hearty welcome. March produced a day of sunshine that would not have been amiss in June, and on every side one heard only satisfaction expressed that the date of the change had been advanced. It is going to mean a great deal to the masses of the population, even if the agriculturists do not gain as much as the others. Economy in fuel and light grows more obligatory with the advance of the war. The supply of coal is restricted, and firewood, in sympathy with the scarcity, has gone up in price. Light, especially in country places, has become something of a difficulty, except in those large establishments which have an electrical installation. In smaller houses acetylene gas was used for illumination, but this has been practically stopped by the Governmental seizure of carbides for use in oxo-acetylene welding. Thus daylight has become more precious. Then, everybody is interested in one form or another of outdoor work, mostly of food production, and to them the extra hour of daylight is a valuable boon. Summer time, in fact, is adding greatly to the health and efficiency of the community.

**W**HAT is to be the position of the housekeeper who this year lays down eggs in waterglass during the coming weeks of plenty and comparative cheapness? The point has already been raised by a correspondent of the *Westminster Gazette* who formerly kept hens and preserved a proportion of the eggs. This year she is living in London and has no hens, and she is anxious to discover how she stands under the Food Hoarding Order. The Ministry of Food offered no better counsel than that she must apparently take the risk of being prosecuted for food hoarding if the supply of

preserved eggs is more than is necessary for a two or three weeks' consumption. Obviously no one preserves eggs otherwise than as a provision against the winter scarcity of new-laid eggs; and to talk of two or three weeks' supply in this connection is just nonsense. It is a sound principle of economics that present plenty should be husbanded against future shortage. This is recognised by the authorities in the matter of fruit by the encouragement that is given to preserve it in bottle or in the form of jam. But it applies equally to eggs, and it is therefore greatly to be hoped that a premium will not be set upon the extravagant consumption of eggs by penalising the provident housekeeper who wishes to preserve a reasonable supply. A clear statement by the Ministry of Food should be issued without delay in order that the best possible use may be made of this season's laying.

AS regards jam making, the total amount of sugar available for each household for making jam from home-grown fruit will not exceed ten pounds. The plan seems to be that persons having a larger supply of fruit than can be preserved with that allowance of sugar will be expected, as *quid pro quo* for sugar received, to make over their surplus supply to the local food committee at current rates. As no extra sugar will be available for those who wish to make jam from bought fruit, the only course is to save what they can from their sugar ration. A good deal of fruit was lost last year, and this year the need for it will be greater owing to shortage of butter and margarine. If sugar is not available for jam making, there remain the simple methods of bottling, which require no addition of sugar. No fruit need be wasted this summer. One effect of the lack of sugar for preserving last year is seen in the returns from one of the largest fruit farms in the country. Whereas apples, which needed no sugar, realised higher prices than ever before, the various soft fruits, such as raspberries, black currants and gooseberries, fetched comparatively poor prices. They were cheap and plentiful, and the demand was small simply because of the difficulty of using them.

IT would appear that the next Controller to be appointed will probably be a Controller of Travelling. Some people, no doubt, will rejoice that this event does not take place before Easter, as one of the first duties of the new official will be to restrain the pleasure travelling that takes place at all the various Bank holidays. That there is a problem to be solved admits of no gainsaying. The railways are largely depleted of man-power and cannot run the trains they used to run. On the other hand, there has been an increase in necessary travelling. Many men connected with munitions and other Government affairs are compelled to move about. For military considerations, again, soldiers and sailors are constantly being shifted, to say nothing of the journeys taken on their own account. The number of people who are journeying about for mere enjoyment appears to the onlooker very small in comparison with the number of those who are in one way or another obliged to travel. Therefore the Controller will have a very difficult task set him. Much of the journeying cannot well be interfered with because it is born of the necessities of the time, and when it comes to distinguishing between business and pleasure travelling it will be found that there are very few people on the train who cannot mention a serious object that they have in view, much as the spectator may suspect that it might have counted for little if it had not involved a pleasurable visit. But to draw a distinction and limit railway travelling without interfering with business is a task we do not envy the coming Controller of Travelling.

THE principle which secures the proper utilisation of waste products in industry is very rightly and none too soon to be applied to the households of private citizens. None of us wishes to waste anything that may be of service. The difficulty is for the ordinary householder to know how to dispose of valuable refuse. To meet this the Local Government Board is arranging a number of conferences in various districts to which the representatives of local authorities will be invited. The National Salvage Council, however, addresses itself more directly to the individual householder and points out the great value of bones, even after they have been used for making soup; indeed, 18lb. of bones can be made to supply enough glycerine for an 18-pounder shell. When it is realised that home-produced glycerine costs only £59 10s. a ton as against £300 for imported glycerine, the urgency of conserving bones is apparent. But glycerine is not their only product, for they are most valuable when converted into phosphatic manure or made into bone-meal for poultry.

The simplest plan for the householder is to sell his bones to the local rag and bone merchant—indeed, this is the course recommended by the National Salvage Council.

MONDAY next sees the revival in London and the South of England of the Curfew law. That an enactment repealed by Henry I should be revived in this year of grace and should be accepted as quite naturally belonging to the scheme of things is itself an indication of the extraordinary revolution that has taken place in the national habits. Sumptuary law with its Tudor flavour is a mushroom growth compared with King Alfred's Curfew. At first sight it is not quite clear what advantage will be gained by earlier closing of theatres, as it is obvious that, at whatever time of the day theatrical performances are given, the consumption of artificial light is the same. Turning people out of restaurants, too, will but send them to their own homes, there to consume "individualistic" light and fuel instead of sharing the communal warmth and lighting of the café and restaurant. The real gain will be in the diminished passenger traffic on the suburban railways late in the evening at a time when the lines are needed to their full capacity for every sort of goods traffic. If the new rule sends us to bed betimes and induces us to be up again in the morning so much the earlier, it will be all to the good. The danger will come from idlers seeking some new mode of killing time at night. As it is, streets such as the Strand are thronged every evening by a noisy crowd that calls for a certain measure of supervision.

#### EASTER.

Once again is faith triumphant ;  
Earth so long depressed and grey,  
Shows by all the old, sweet tokens  
Winter's stone is rolled away.

E'en the saddest of all places  
Sacred comfort now may yield—  
Souls have risen, if not flowers,  
From the trampled battlefield.

MARY A. POYNTER.

LORD INCHCAPE, in a letter to the *Times*, has stated a case which seems to be a very damaging one to those who attend to the shipbuilding interests of the Government. His tale is that early in the war he and a number of friends perceived that Chepstow would be an excellent place to turn into a shipbuilding centre. They determined to put their idea into practice. A company was formed with a capital of £600,000, which was subscribed without the necessity arising of any recourse to a company promoter. They started on a programme at once, and would have been turning out large ships by now if the Government had not intervened. It appears that the predecessors of Lord Pirrie, grasping the idea that Lord Inchcape and his followers were right in selecting Chepstow for shipbuilding purposes, promptly took it over. The result was that the programme which the company intended to carry out was hopelessly ruined and the Government shipbuilding authorities have lost a great deal of time, and have not yet been able to start shipbuilding. This constitutes a charge of incompetency which the Government cannot afford to ignore, and the country will look forward with interest to any reply that may be vouchsafed to Lord Inchcape's very damaging letter.

M. ALBERT THOMAS is no whit behind M. Clemenceau in his facility of forcible expression. In an interview published in the *Observer* he claimed for the French Socialists that so far from disagreeing with the war aims of the Republic, which are the war aims of the French people, the Socialists of France have led in their formulation and expression. French socialism, so far from having adopted the aims of our own Prime Minister and of President Wilson, had, on the contrary, enunciated them first. We in this country have had ample means of estimating the boon that solidarity is to a nation at war. That has been the strength of Germany and it is the strength of the United States in her preparations. With America remoteness from the scene of conflict has not operated as disastrously as it has done with us, when, even at the time the newspapers were full of the German offensive, they contained also news of a threatened strike of engineers. The French Socialists are all of them fighting socialists; and just because there is equality of stake and equality of sacrifice, so there follows a unity of understanding of the issues involved. Whatever voice socialism may have in the future settlement it will be to the French that the international socialist's thanks will be chiefly due.

# OLD EXPERIENCES AND FUTURE ASPIRATIONS

BY E. L. TURNER.

When rosy plumelets tuft the larch,  
And gaily pipes the mounted thrush,  
And underneath the barren bush  
Flits by the sea-blue bird of March.

IT is time the bird photographer began to overhaul his camera so that everything may be in order for the season's work. The hiding tents, too, generally need a deal of repairing. Of course, a person possessing a well ordered mind always patches and darns the many slits in his tents during the long winter evenings. Personally I cannot lay claim to this most estimable trait. Moreover, my tents are recklessly slashed with a penknife all round, the usual peepholes never seem to be in the right position; so, by the end of the season the canvas depends largely on safety-pins and bits of string for its stability. Experience has taught us that birds will face almost anything. They draw the line, however, at flapping bits of canvas. In the early days bird photographers endured much unnecessary pain and discomfort in their efforts to make themselves invisible. I shudder now at the recollection of hours spent lying prone on a marsh beneath a heap of cut litter, unable to see anything but the nest in front of me. One's eyes were terribly strained by staring through criss-cross strands of rubbish which invariably blew down and blurred one's vision. Movement was impossible, for the easing of a tortured muscle might scare away an approaching bird. One gradually became benumbed, with the result that when the psychic moment arrived it was impossible to squeeze the release. Usually, however, this temporary paralysis diminished after two or three hours, provided the painful stage could be endured. Sometimes it was followed by a curiously "alive" feeling. The physical numbness seemed to increase one's mental sensitiveness. All the minute sounds which are so palpable on a summer's day became intensified. The growing rushes, and even the dull clods, seemed sentient things. One drank in life as if it were some potent elixir. One's own little restless *ego* became absorbed in the great ocean of life. But the quick patter of a returning bird, or the faint rustle of the herbage as it crept through speedily brought the photographer back to mundane things. All these sensations are more or less a thing of the past. So also is the old intimate

relationship between the hidden photographer and the bird. The sedge warbler no longer perches on your lightly covered head and pours forth his garrulous song. Neither does the snipe prod your face with his sensitive bill, nor do you thrill as he nestles close to your ear, his whole body vibrating like some delicate bit of mechanism while he utters his creaking call-note. The modern photographer no longer transforms himself into a rubbish heap or talks of his sport as "rubbish-heaping." He crouches, more or less at ease, in a little tent which may or may not be "camouflaged." He sits on a box surrounded by luxuries such as writing materials, thermos flask, spare apparatus and sandwiches. He sets out with the intention of staying in the tent from dawn till dusk, if necessary. He need not suffer abnormal weariness. Moreover, he is able to watch all the birds in his vicinity and to keep an eye on the horizon as well. If it rains he covers his lens and slips a macintosh over the camera. He is quite happy watching the mad things birds do in a summer shower, and maintains a profane silence when powerless to photograph some of the most exquisite scenes in the pageant of a bird's domestic life.

There are, of course, exceptions to this rule of general comfort: I am only generalising. Occasions may arise when one requires a considerable amount of nerve and large demands are made upon one's endurance.

There is no doubt that for certain species—notably duck—it is very necessary that the photographer should be as unobtrusive as possible. Nothing should ever be left to chance. But the majority of species care very little what is dumped down before their nests or playgrounds. The one essential thing is that the human being should be hidden—man is their natural enemy.

At the beginning of the war, when the Army tents were painted in regular stripes of alternate pink and green, I longed to get a pot of paint and a brush in order to break up these lines. The word "camouflage" had not then been introduced, and the art was in its infancy. These tents were quite easily detected from a considerable distance. My own experience in "camouflaging" was the result of mere chance. I put up a little brown canvas tent on Holy Island near a newly ploughed field. It harmonised very well with the earth until by and by the elements transformed the brown into a



J. H. Symonds.

REED WARBLERS BUSY WITH THEIR OFFSPRING.

Copyright.

sickly yellow. The tent was then a conspicuous object from any view-point on the island. So I bought a pint of green paint and endeavoured to lay this evenly all over the canvas. This would have been a simple enough task had I spread the tent on the ground, but I left it standing. The day was windy and I could get no purchase on the canvas. My best intentions only succeeded in producing irregular streaks all over it. Having exhausted the paint I sat down and sadly contemplated the result. It looked like a Futurist picture of Indigestion. I retired crestfallen; but, turning round for a parting look at my handiwork when about a

mechanical process. An undetected flaw in one's apparatus, a slight lapse of memory when adjusting any part of the mechanism, a stray bit of wind-blown herbage across the foreground—and the picture is ruined. Chances are lost which may not occur again. Your really patient person, too, never gets excited. But bird photography provides thrills which cause the blood to course so rapidly through one's veins that often, when the moment comes, one's hands bungle and again the chance is missed.

Most of us have more failures than successes. I always reckon mine at about 90 per cent. I may be more reckless



Miss E. L. Turner

NIGHTINGALES AT HOME.

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hundred yards away, to my astonishment, the tent was practically invisible. It was from this tent I afterwards got all my "Wait and See" photographs.

The bird photographer is often wrongly credited with abnormal patience. What he really possesses is not so much patience as true sporting instinct of the best and highest kind. His object is not to kill, but to obtain knowledge. We are seldom patient, and the language we can use is often lurid enough to fog the plates; photography is such a purely

than most in the expenditure of plates. Personally, I prefer to take any risks and chance any sort of exposure rather than lose an opportunity of securing a pose or depicting a mood: the bird and its psychology mean so much more to me than the perfect negative or the finished print. Not that I despise either; but, primarily, they are not my job. I want—and have always intensely wanted—to depict the living, moving bird.

I have just come across the following somewhat patronising summing up of the efforts of bird photographers in a



Miss E. L. Turner.

A WATER RAIL HOLDING A CHICK BY ITS HEAD.

Copyright.

current scientific magazine. The writer (one of the best of scientific ornithologists) says: "Photography has of late years been brought to a fine art, and very pleasing pictures are often produced; it has many devotees, but I do not think the time necessarily spent on the subject is in any way

commensurate with the scientific value of the results, though doubtless a pleasant and instructive hobby for the lover of nature."

One has to delve deep and expend much time and energy in order to obtain a single ingot of scientific knowledge.



Miss E. L. Turner.

SNIPE RUNS IN FRONT OF A REEVE.

Copyright

But there is, at any rate, one great lesson which photography has taught us, and it is this: Birds of the same species differ individually and temperamentally just as much as do any other animals. The observer can no longer deduce certain facts from the behaviour of one pair of any given species. They differ widely in intelligence, in skill and in their methods of performing the same tasks. They have also a far keener sense of humour than the older ornithologists gave them credit for possessing. In fact, I doubt if they were allowed a sense of humour at all.

There is no doubt that the production of beautiful bird pictures has done much to arouse the interest of the general public in bird life and, consequently, in bird protection. Illustrated bird lectures in schools, no doubt, tend to raise a boy's ideal of what the real naturalist should aim at. The argument brought by many men against bird photography for boys is that it is too inactive a sport and too dull for the average restless, "soaring human boy." They little know,

who argue thus! Its very difficulties appeal to many boys. There is so much to overcome in order to obtain a successful photograph. And what about the glorious prospect for the future generation of workers? Those of us who are under the spell of the bird are powerless to resist the magnetic attraction of the wildest, freest thing God ever made. We have been willing to follow its lure into the uttermost corners of the earth and sea. Perhaps we have done our bit. We have, at any rate, paved the way to far greater things. The coming generations of bird photographers will pursue it through the air. They will rival it in its own element, and try to outmatch it in its hitherto unrivalled art. It would be good to be born twenty-five years hence. Under present conditions we are perchance idle. Or rather, our time is occupied with routine work—a blessed drudgery which keeps us sane. But our thoughts linger lovingly over the past, and nothing shall rob us of our dreams of the future.

## A MILITARY GARDEN

**I**N the days of the late Lord Jersey Osterley Park was mostly famous for its garden parties, but since war broke out a portion of it has been utilised for national purposes. My principal object in visiting it was to look at the gardens, but, interesting as they are, theirs is not the only point of interest. The whole settlement strikes one as being an extraordinary example of economy. This will be shown piece by piece, taking the cultivation of the soil first.

As a whole, the camp is under the able and energetic command of Colonel Kearns, but Major Townson is more immediately connected with the organisation of cultivation. He is very competent for the purpose, as in earlier and more peaceful days he farmed on a considerable scale and has a thorough knowledge of crops and their management. At the end of March there is not much to show in the way of this year's vegetables, and only the remains of those of last year are still on the ground. Moreover, Major Townson holds the very sound opinion that it is a mistake to begin sowing and planting too quickly in a very cold soil. And this soil is very cold indeed. It was virgin in character before the war and some of it lay in what was practically a morass. The soil itself is very common in Great Britain; that is to say, from six to nine inches of good dark mould resting on a subsoil of heavy clayland which will grow anything when set going, but is slow to start. Nevertheless, it has yielded to cultural skill. It has only been two years under cultivation, yet the bare figures of last year's results are enough to demonstrate the immense advantage to the country of the military garden. In round figures 1,883cwt. of vegetables were raised, and they would have cost, at military contract prices (which are below those of the usual market), £742.

The cost was less than £100. It works out, to be exact, at £91 14s. 2½d. But if a few pounds be added to this for miscellaneous expenditure, it still shows an immense profit. The cost incurred was for implements, ploughing, manure, seeds and seed potatoes. No rent is charged, and thereby hangs a tale. This immense quantity of vegetables was obtained by utilising in the fullest degree the land within the compound which would have lain waste if not utilised in this way. Huts have been built for the men, and between each two rows there is a space of some 240ft. by 60ft., which was dug last year and to a great extent planted with potatoes. Plots like this are numerous, and, of course, there are many other considerable portions of ground which are not really needed by the soldiers and can therefore be profitably turned to vegetable growing. It need not be thought, however, that in the search for material usefulness beauty is altogether lost sight of. Borders, plots and corners with daffodils just ready to break into bloom; clumps of rhododendron bearing the promise of a liberal blossom; greensward in front of the open air theatre put up for the amusement of the men, and another which is in course of preparation for the officers: all in their due season tend to brighten the general outlook. Add to this an air of pretty neatness throughout, and some idea may be formed of the excellence of the system. Most of the land was lying rough after being dug last autumn by casual labour, and one wonders how the chance seeker for a job managed to turn it out so well. Frost and snow, sun and wind have produced a fine tilth which is all the better

because examination shows that the casual has dug much more deeply than might have been expected of him. If a gardener can ever be certain of good crops in this capricious clime of ours, that certainty must exist at Osterley Park this year. Major Townson's method of cultivation is marked by sound common-sense. He has carefully abstained from following any "fancy." Land which has lain in grass from time out of mind and is newly brought in will not carry every garden crop that one might be tempted to put into it. Onions, for example, have not been experimented with; they demand a soil that has been matured and enriched by a few seasons of cultivation, and the chances are against their doing well in this new ground. What Major Townson set his mind upon were those useful vegetables which the British soldier, like every other useful British citizen, is in the habit of seeing upon his table. The great crop, of course, was potatoes, of which 500cwt. were grown last year, which would have cost the Army over £200 if they had been to buy. Next to them in bulk come turnips and swedes. Of cabbages 495cwt. were grown, which would have cost about £300 to buy. Brussels sprouts, artichokes and lettuce were the other principal crops. It will be gathered from the list that the eye of the gardener was, as it should have been, kept carefully upon the mess-table all the time. This year the results will certainly exceed those we have enumerated. The land that was brought in has been well cultivated, and is now being richly manured, while a considerable area is being added. Some of the latter was shown to the visitor; a part was ploughed during the autumn, and is fairly clean save for a sprinkling of docks that will be pulled up by hand. A great deal of it was foul with couch grass, but it will be brought into condition in good time for sowing seeds and planting out cabbages. The first business, of course, will be to plough it thoroughly, and then, if the weather be dry, Major Townson will bring to bear upon it a most valuable implement which he has devised himself—one that might be described as a cross between a harrow and a heavy roller. It is made of wood and lies flat on the ground save for what one might call the underflooring, which is arranged so that the boards comprising it stick out like ribs. Two horses pulling it over a well ploughed field not only crumble the clods into a tilth, but drag the couch grass into large heaps which are burned and the ashes used to improve the fertility of the soil. It is a homely but extremely useful invention.

It would be evident, even from this rough sketch, that the land is very economically used. Those who think the Army extravagant might with advantage spend a half hour or two looking at the kitchen and other arrangements. I asked Major Townson if he had ever thought of keeping pigs. He replied that there was not enough waste to do so. Now, this reply might seem to be very astonishing to those who consider, as many do, that wastefulness is rife in the Army, and who are ready to regard it as more or less inevitable on account of the large and not only large but fluctuating numbers to be catered for; but there was no exaggeration about the reply. There may have been, and doubtless was, a very considerable amount of waste during the early days of the war, but Colonel Kearns and his coadjutor have effectual means of preventing anything of the

kind occurring here. Waste from the table must consist of certain things which we very well know. Crumbs of bread, ends of loaves and so on, are frequently thrown away by the poor; so are bones, scraps of skin and skirting, all that we call refuse in meat, all gravy, grease and oil, a very large proportion of which disappears down the kitchen sink; but the thrifty housewife would not find any of these things done here. Let us take bread as an example: it is baked on the premises and is cut into slices by machinery on a table spotlessly clean. Such crumbs as are made, along with the heels of the loaves, are put into a basket and transferred to the room where sausages are made. It will be observed that as far as possible the place is self-contained, and the scraps cut from the meat before cooking, pieces of skirt and other oddments are put into the machine and made into sausages with the bread waste as described. It is all beautifully clean and orderly. Colonel Kearns holds the good, sound, old-fashioned belief that any man who is interested in what he eats ought to be able to go to the kitchen and be satisfied with its cleanliness. In this camp the kitchen is spotless. In cooking, hands are used as little as possible, and even after it is cooked the meat is carved by machinery. The method of serving may be described as that of a large household. Equal order was observed in the kitchen where puddings and sweets are prepared for the table. The latter consisted largely of rhubarb stewed in giant cauldrons, and custard cooked in vessels to match.

But to return to the question of waste. Even in the cottage, bones are frequently thrown away, and grease, as has been said, is allowed to foul the drains. Not so with the military; the first quality of dripping is to a considerable extent used by the soldiers in place of butter. Each unit has his allowance of 2oz. of margarine cut up for him, and marked with the seven stripes which signify seven days of

the week; but if he should want to supplement this addition to his bread, he has access to the best dripping. The second best is utilised for cooking, and the third is that which is obtained from the dishes, pans and so on. Instead of allowing this to become a nuisance, a little barrel is fixed up outside the kitchen wall and opposite to the sink, so that the greasy water drips into it, the water escaping through a siphon arrangement at the bottom. The design is as old as the Roman Empire, and nothing more effectual has yet been invented. The grease floats on the water to a depth of several inches after the men's dinner; it can then be removed and sent to the soap manufacturer, who is urgently in need of this commodity. As to bones, after they are roasted with the meat they are boiled for soup, and even then their period of usefulness is not ended, as they are then sent away to have the glycerine extracted, and what remains is turned into manure for the fields. Thus waste at Osterley Park is reduced to its lowest degree. I saw the receptacle in which such waste as there was had been collected, but the contents would certainly have gone little way towards feeding more than a pig or two. Suppose that four pigs could have been kept, it would not have been worth while, as, taken altogether, the waste would have scarcely provided a day's rations, and if sold the price would not be worth taking into account.

In such a place as this it might be expected that the men would be encouraged to exercise their talents in any possible direction, and this is exactly the case. The men's general room is a delightful place; on the walls are innumerable pictures, the majority of which are examples of military humour, and a considerable number have been done by artists of standing. There is also a canteen where the opportunity of obtaining food is nullified as far as concerns an hour before and after a meal, but other refreshments are always to be had in their proper time.

## OIL LEGISLATION IN ENGLAND

THE recent public statement by one of Britain's foremost business men, and one of the leading figures in the world's oil trade, to the effect that he is convinced that oil exists in commercial quantities in Great Britain has created great public interest, which is increased by the fact that the offers made to the Government by Lord Cowdray are conditional upon legislation by the Government to protect the industry which would arise from the proving of the existence of oil in this country. In view of this widespread interest, the following statement of the fundamental principles underlying oilfield development sets out clearly the reasons why legislation is so vital to the proper development of a home oil industry.

In brief, the main object of legislation (with all due respect to our cousins across the sea) is to prevent the introduction of the American oilfield development system into this country. Now, in America the oil mineral rights belong to the surface owner, and, in general, the sale of the surface carries the rights to the minerals, even without these being specified. In England the minerals may or may not accompany the transfer of the surface, but in both these countries the system of mineral holding is entirely distinct from that of France. There, for instance, minerals are subject to grant by State concession, irrespective of surface ownership.

The system in this country is undoubtedly entirely suited to all minerals except oil. In respect to this latter mineral, it is now proposed that a new type of legislation be passed to suit the special needs of the case. Liquid oil (and this term is used in contradistinction to the shale oil) is not a fixed mineral like coal or iron, but is a movable substance which can and will migrate from one point to another under the surface of the lands when conditions permit. With this fundamental difference in character, it becomes clear that the legislation which is suited for a fixed mineral is not suited to a movable one.

To show the actual results of the migration of oil on the development of an oilfield, we have reproduced here a map of one of the best known fields in America, namely, the Cushing Oilfield of Oklahoma. On this map there are clearly shown the results of the American development system, which, as we stated, it is desirable to avoid introducing into this country. This oilfield is cut into many small plots of land belonging to many owners, and one is at once struck by the number of wells which have

already been drilled in this field and the manner in which these wells congregate at the corners of properties and are drilled in pairs all the way around the boundaries of some of these plots. The reason for this is the following: Where four properties abut, if one property owner drills a well in the corner of his plot, he immediately commences to drain the oil from underneath his neighbour's land. The amount or extent of this drainage is difficult to state, but since oil is known to migrate considerable distances underground—distances which, in fact, are known to run into several miles in certain cases—it becomes evident (since it has so far been impossible to recover damages in the American courts of law for oil so drained, because of the difficulty of proving the amount of oil which has migrated or, in fact, proving that the oil raised actually came from under any particular property) that the only protection the other three adjoining landowners have is for each to drill a well in the corner of his plot in an endeavour to obtain as much of his own oil as possible. Further, it becomes evident that the one who gets his well down first will get the greatest share of the oil. From this we obtain two conditions: First, four wells where one would have been sufficient (see accompanying map), or the waste in money of the price of three wells; secondly, the strenuous competition in putting down wells, resulting in faulty and imperfect work.

Now, when an oil well is drilled the bore hole starts with a diameter of 12ins. to 15ins., and finishes up at a depth of 2,000ft. or 3,000ft. with one of 5ins. or 6ins., and, in order to keep the rocks and water out of the bore hole, an iron or steel casing the same diameter as the hole itself is put down as fast as the boring proceeds. One of the most important functions of this casing is to keep the water from entering the wells or, more specifically, from passing from a water strata to an oil strata.

Nearly all oils, with the exception perhaps of those from one small area in Venezuela, are lighter than water, so that when the water once enters an oil sand, being the heavier liquid, it drives the oil out, and oil so displaced is lost for ever. This is clearly as definite an economic waste as dropping gold over the side of a ship into the ocean. It still continues to exist, but is of no more benefit to anyone.

To return, however, to the subject of hasty drilling, it immediately becomes evident that such drilling is bound

to result in the leakage of water into the oil sands with a consequent waste of oil. In this connection we might mention that at a Government enquiry it was stated by competent experts, and concurred in by practical oil men, that in the development of the American oil pools under the existing system from 25 per cent. to 85 per cent. of the oil is left in the ground and never recovered. Or, in other words, out of £1 sterling value in oil, 5s. to 17s. worth is left in the ground by careless, wasteful methods.

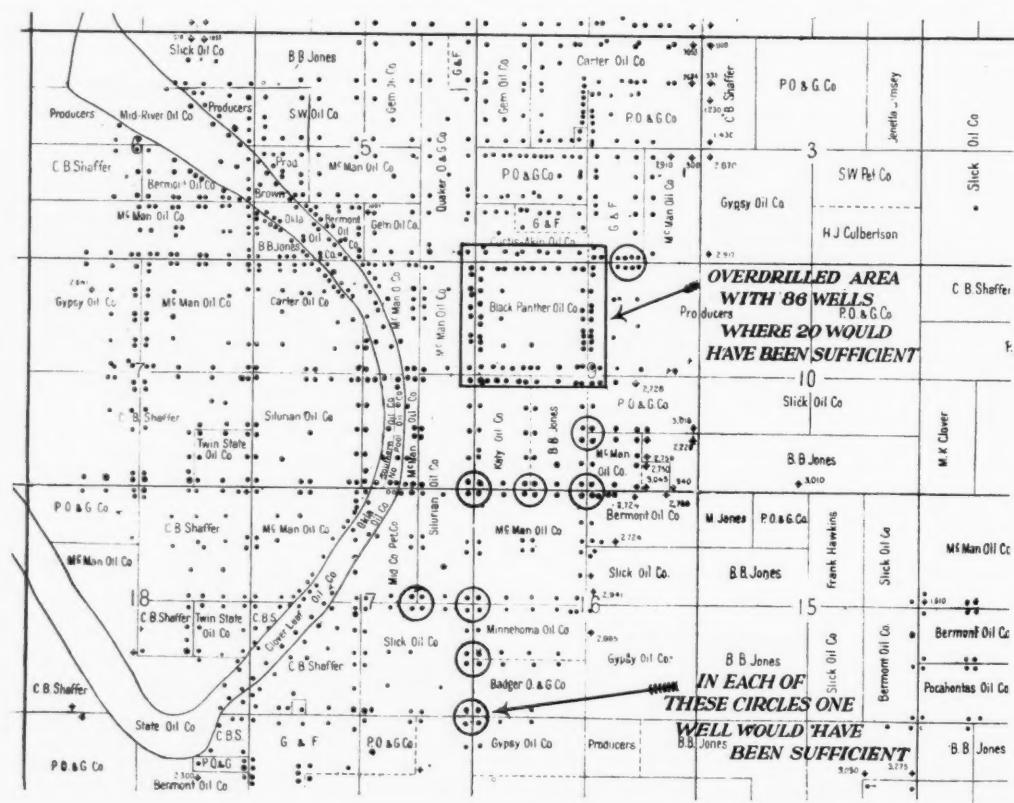
Referring again to the map which shows a section of this oilfield, we see in one area eighty-six wells, the major number of which have been drilled along the boundary lines in an attempt to get the largest possible share of oil obtainable, and likewise to get it before the adjoining landowners could do so. The plot in which these eighty-six wells are drilled is, roughly, 200 acres in extent, and by normal and correct drilling twenty wells would have been sufficient to obtain the oil probably, and, be it noted, twenty wells correctly drilled would undoubtedly have extracted a much greater amount of oil in the long run than the larger number of wells has obtained.

Another factor in raising oil is the gas pressure which exists with the oil, and which, when properly conserved, not only assists in forcing the oil out of the ground, but

producing only a one-hundredth part of this amount, whereas, on the contrary, a well a year old should be producing nearly as much as when it first starts to flow. The Government authorities state, therefore, that the ultimate production of the properties will be much smaller than if the field had been developed wisely.

The total output of the Cushing field to date is, roughly, 200,000,000 barrels of oil. Now, when we go back to the figure of 25 per cent. to 85 per cent. of the oil left in the ground under this system of working and think what this field might have produced under a proper system of Government control, which would eliminate this wasteful method, it is clear that the statement of an oil man familiar with the development of this particular pool was not too strong when he recently said that this was "the greatest economic crime of the decade."

In addition to the waste of money in drilling an excessive number of wells and the far more important waste of gas and oil left in the ground and lost for all time, there is a series of wastes once the oil is on the surface. Rush drilling, naturally, does not allow time to prepare adequate storage or transportation facilities. When storage is available and used, it is costly and wasteful, owing to the very high percentage of evaporation (which may be as much as one-fifth of the value of the oil at times), and the further losses by fires



Map showing excessive number of wells drilled along boundary lines as a result of the small plot system.

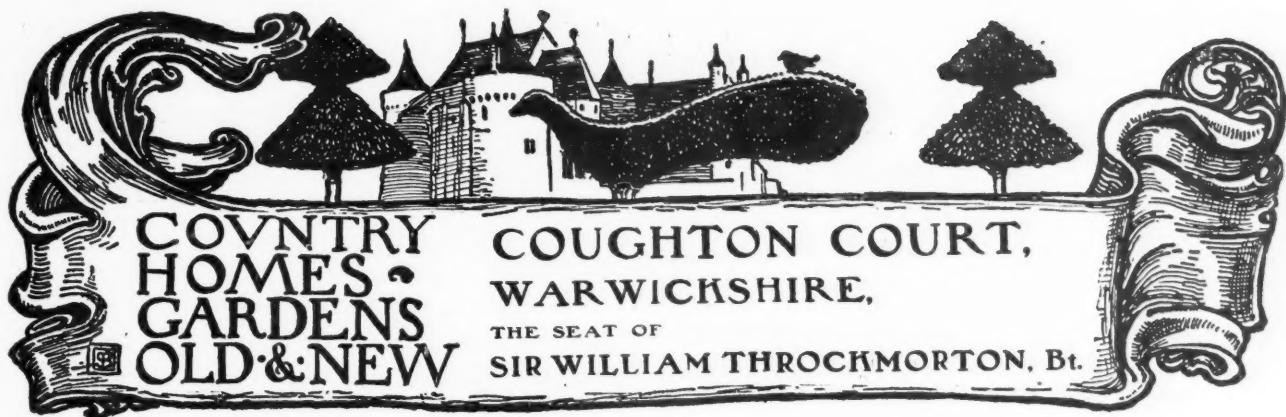
at the same time helps to prevent the water from entering the oil sands. Gas is thus a very important factor in protecting the oil and in increasing the ultimate production. In some wells the gas pressure may be as much as 1,000 lb. per square inch, or, in cases, even much more than this. With hasty competitive drilling, such as we have described, where everything depends on the speed with which a well is put down, no provision can possibly be made for preventing the waste of this all-important gas, and in some of the wells drilled in the Cushing field the initial open flow of gas was more than 50,000,000 cubic feet of gas per twenty-four hours, which generally was allowed to run to waste until exhausted.

As a result it is found that the Cushing field in its sixth year of production, at which period it should just be beginning to come into substantial production, already has started to decrease its production very rapidly. The explanations of the Government experts who have examined into the causes are that the decline is due principally to the tremendous waste of gas during development, to improper construction and operation of wells, to inadequate well casing, and failure to prevent the water from migrating into the oil sands. As a direct result the wells now being drilled in this field, which start with 1,000 barrels of oil in a year's time, are

and many other minor causes all tend to reduce the total amount of oil actually available for the world's use.

The fundamental and underlying cause of all this waste arises from the excessive competitive drilling which in turn is the direct outcome of the small plots of land system. The remedies are adequate acreage for oilfields and Government legislation to control the drilling, preferably by a system of drilling licences over large areas.

To return to the position in England: no one expects to see a second Cushing field here; that is too much to hope for, but everyone has the right to expect and, in fact, demand, that if oil is proven here, it shall be developed under a system of Government licences, which will obviate the waste that has accompanied the American development as outlined here. This waste can only be prevented by legislation before drilling is actually begun; once started it will be too late. Drilling under the Defence of the Realm Act, which makes no provision for the conditions after the war, will merely serve to precipitate upon the country this wrong and criminally wasteful method of work. The present Parliament has in its hands at the moment the opportunity to pass a Bill which, immediately upon the occurrence of oil in England, may prove to be one of the great pieces of constructive legislation of the whole session.



THE subject of this article lies in a pleasant country of fat green pastures, woodland, orchards, and low hills, watered by the little Arrow stream, a tributary of Shakespeare's Avon. Coughton (pronounced "Coton"), with its great house, is in the magic circle of Stratford. Shakespeare must have often seen the house, the older parts of which were built within half a century of his birth in 1564. The great courtyard must have been in building while the poet was still in his *première jeunesse*.

The house and beautiful park are on the skirts of the forest of Arden, and as the house is approached from the tiny village the beauty of the surroundings is very

striking, and the grouping of the house with the ancient parish church and a modern Roman Catholic chapel makes a picture not easily forgotten. The conjunction of the three reminds one of the exceptionally interesting history of the house and of the Throckmortons who have lived in it for 400 years, and who are represented to-day by Sir William Throckmorton, Bart. Whether there was an older house on the site of the present or on another site seems to be uncertain. Whether or no the man who, early in the sixteenth century, very soon after Henry VIII had come to the throne, began the house we now see was Sir George Throckmorton, his plan was an ambitious one, but was apparently never completed. The great gateway tower, which must surely have stood detached when first built, with the dairy and some minor buildings in the rear were all that he lived to see completed or, at any rate, that have come down to us of his work.

Anyway, he has left us the stately gateway tower, fronting, like the church (seen to the right in the photograph), east and west. For imposing proportions, height, and excellence of design it stands out among the very finest examples of its class in England. Even the unhappy contrast of the stuccoed Georgian Gothic wings only serves to enhance the beauty of the ashlar work and the charming early Tudor details of the gateway. Dugdale, the seventeenth century historian of Warwickshire, calls it "that stately



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THROUGH THE ARCH OF THE OLD GATE-HOUSE.

"COUNTRY LIFE."

castle-like gate-house of free stone"; and he states it to have been Sir George Throckmorton's intention "to have made the rest of his house suitable thereto": though, whether Sir George intended the gateway to be detached and the house itself to stand in the rear seems to be doubtful.

The west, or entrance, front and the east front of the gateway, facing the quadrangle or courtyard, are of the same

and the canted sides of the oriels, the play of light and shade is charming to a degree. Battlementing crowns the whole, and the turret tops are carried considerably higher. On the aprons of the oriels are recessed panels, the upper Renaissance, the lower of Gothic design, enclosing, respectively, the Royal Arms of Henry VIII, with the dragon and greyhound supporters, and the portcullis and rose, and the arms of the Throckmortons, with their crest



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THE GATE-HOUSE OF FREESTONE.

"COUNTRY LIFE."

elevation, but with minor points of difference. The leading features of both are the great entrance archway, the octagon angle-turrets pierced with a tall window on each face on the west side, and the beautiful double-storeyed oriel, between which and the angle turrets another window ranging with them is pierced, giving a lantern-like appearance to the whole composition. With the different facets of the turrets

of an elephant's head over a heraldic casque flanked by mantling. The stone shield of arms on the west side, by a sad coincidence (some would say a significant one), fell and was broken on the day when Sir William's nephew and heir was killed while fighting gallantly in Mesopotamia. In the spandrels of the great arch on both sides are other shields displaying the family quarterings set in conventional

foliage of rose branches, etc. On the east side the carving has never been quite finished; and on this face there is a shaft with capital and base to the inner order of the arch, the mouldings of which on the west face are continuous.

The ground storey of the gateway is vaulted with fan-tracery and angle shafts, and forms a stately hall, with doors to right and left and a fireplace. Over the western entrance is the verse: "Nisi

Copyright. dominus edificaverit domum, in vanum laboraverunt qui edificant eam"; and over the eastern the equally appropriate quotation: "Nisi dominus custodierit domum frustra vigilat qui custodit eam."

The stone wings of the gateway are not inharmonious additions in Georgian Gothic—probably masking older work. During the Great Rebellion the house was badly injured. The Parliament soldiers in January, 1644, set fire to it in three places. But after the Restoration the damaged parts were repaired by Sir Francis Throckmorton, who at the same time made considerable alterations in the disposition of the buildings and the internal arrangements. Troublous times were, however, close at hand, and in 1688, when King James II had fled the country, the house was sacked by a Protestant mob, which pillaged and ruined the chapel on the east side of the quadrangle within the gateway.



FROM THE NORTH-WEST.

"COUNTRY LIFE."

That east side is now a blank, as may be seen in the view looking through the great archway of the hall. The ruined remains were finally pulled down in 1780 by Sir Robert Throckmorton, who also, it is to be regretted, drained and filled up the moat, which, down to that date, completely surrounded the quadrangle and gateway. It is said that the walls rose straight out of the water and that people living in the last generation remembered talk of how the ladies of the house were wont to fish leaning out of the windows. One of the rooms in the north, or kitchen, wing contains a fine panelled wooden ceiling of early Tudor date. This is one of many proofs that neither the Parliamentary soldiers nor the Alcester mob which wrecked the chapel and the eastern side of the courtyard can have set fire to the buildings generally. Had they so done we should not have had the half-timber gables, with the peculiarly elegant barge-boards, on



THE GARDEN FRONT.

"COUNTRY LIFE."

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the south side of the quadrangle. On the north side plain boards have taken their place. There are five principal gables, varying in size on each of these sides, as well as gables recessed in the roof, and the barge-boards of piece and carved work, cinquecento in character, are of unusual beauty. One has a deep plastered cove beneath it over a recess in the lower storeys. The general effect is curiously reminiscent of the long gabled front of Staple Inn, Holborn, and the date

picturesquely tinted in greys, pinks and browns, which has square-headed labelled windows with four centred arches to the lights and a doorway with moulded head of the same character. This has a fine half-timber west gable, plastered externally, but visible from the interior, which one would like to see exposed to view.

The interior of the house, though extensively Georgianised, is almost as interesting as the outside. The dining-room



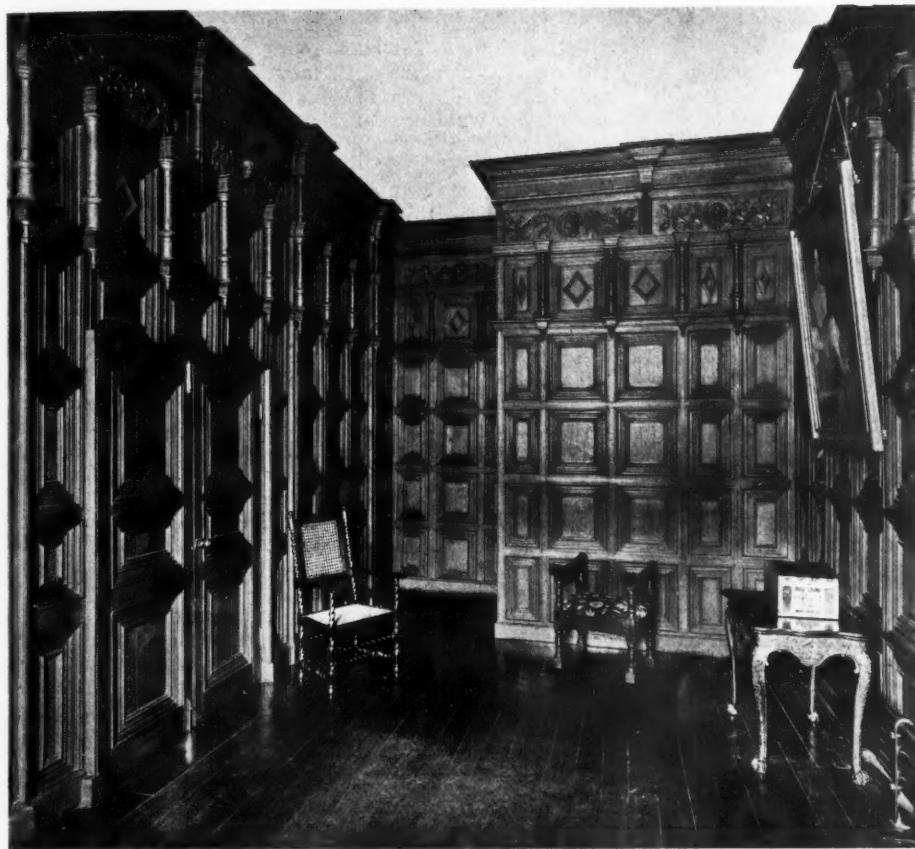
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CHIMNEY-PIECE IN DINING-ROOM.

"COUNTRY LIFE."

may well be about 1580, or somewhat earlier. The barge-boards, indeed, suggest a date in Queen Mary's reign, or early in that of Elizabeth. In all probability building was continuous from Henry VIII's reign, as the stone walls of the ground storey, now largely concealed by roughcast, appear to be of that era, and it is practically certain that the destroyed east side of the quadrangle which contained the original domestic chapel was of the first period. Outside the quadrangle to the south is the delightful Early Tudor building known as the Dairy, with a lower storey of stone very

in the south wing has magnificent panelling and a fine mantelpiece of Charles I's time. It would be difficult to point to a panelled room of this period which would present a more perfect and beautiful example than this, and the adjoining tribune or balcony room opening into what is now the ballroom, but formerly was used as the chapel, is panelled to match. The peculiarity of the dining-room fireplace is that it is part timber, part white and coloured marbles. The shafts on either side are in polished black "touch," or slate, like the celebrated fonts at Lincoln, Winchester, etc. The



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THE TRIBUNE OR BALCONY ROOM.

"COUNTRY LIFE."



Copyright

IN THE STUDY.

"COUNTRY LIFE."

lower pairs have Ionic capitals and bases of Parian marble, the cornice-shelf is of the same, and the Corinthian capitals and bases of the upper pairs; but the overmantel, frieze, entablature and cornice, which continue the design of the wall-panelling, are in oak of exquisite grain and tint. It is possible that some, at least, of the carved panels are of Tudor date, re-used. They are cinquecento in character and display dragons and other monsters flanking roundels, in which are curious little human heads, some in high relief, and here and there the elephant's head, the crest of the Throckmortons. The panels below this frieze have diamonds of projecting mouldings and odd little bracketed-out shafts of turned work supporting a small entablature. The projecting mouldings, intermediate with the flat ones of the Tudor and Jacobean and the large bolection mouldings that came in with the Restoration of Charles II, are the best clue to the date of this rare piece of work. The brackets that support the little shafts have small turned pendants, and in some cases a slender baluster is carried up through the frieze to the main cornice.

It is interesting to compare this Charles I work with that of the second Charles's period in Sir William Throckmorton's study, shown in another photograph. Here the mouldings are larger and coarser, the panels have characteristic quirked angles, and there are flat pilasters of fluted work with Corinthian capitals—the latter either in composition or in soft wood painted to match the rich brown oak. The mantelpiece here is also of composition or of soft wood grained.

One of the house's rare treasures, recalling the relics of King Charles the Martyr at Ashburnham—the home of another Royalist and old Catholic family—is the "Camisia," or chemise, "of the holy martyr Mary Queen of Scots" (as it is styled in the contemporary Latin inscription stitched on it in red silk), in which that unhappy and beautiful lady was beheaded at Fotheringay. It is preserved, with later Stewart relics, in a glass case, itself of some antiquity, and is said to be stained by her blood. Another most precious relic, not so well known, is a beautiful and very perfect fifteenth century cope of black velvet, with seraphim and flowers in heavy gold embroidery. Its history is only conjectural, but it has, time out of mind been, a valued possession at

Coughton Court, and tradition says was worked by Queen Katherine of Aragon.

In one of the bedrooms is a very perfect armoire or cupboard of Henry VIII's reign. Its wide front has double-hinged doors, opening in four leaves, with "marchpane" panels. This is one of the few early pieces left in a house which must at one time have been full of them: but there is much good furniture of the later periods—Charles II to George IV—mixed up with a good deal of poor Victorian.

The ascent to the upper chamber of the gateway tower is rewarded not only by the fine views from the perfect lattice-paned windows (in which are some roundels and shields of heraldic glass), but by the inspection that may be made on the top floor of the carefully planned exit contrived in troublous times for the recusant priest or members of the household who might be "wanted" at short notice. It is by means of the north-east turret. The south-east turret is fitted with the usual "vice" or winging stone stair, but its companion, when the door to the chamber is unlocked, reveals a dark shaft, void of steps, but having instead two tall ladders roped together (said to be the original ones when this turret was re-opened fifty-seven years ago), by means of which access can be gained in a few minutes to a priest's hiding hole and a secret passage beneath the moat, now partially stopped up. Various very interesting relics were discovered when search was made in 1860 at the foot of this shaft, including a tablet altar, 6ins. by 4ins., of stone or marble, marked with the usual five crosses, in a portable case, which Sir William Throckmorton has given into the custody of the priest-in-charge of the adjacent Roman Catholic church.

Mrs. Throckmorton, has made an accurate inventory of the historic portraits and other paintings in which the house abounds. They are in themselves not only an epitome of family, but, to some extent, of national history. As we gaze at these departed Throckmortons and other people of an utterly remote past we find links with four centuries of English history. To name but a few: we have

"Sir James Willford," in armour, painted on a panel, 1547; "Col. Ambrose Throckmorton," *temp. Charles I*; "Sir Nicholas Throckmorton," "ætatis suæ 49°," Ambassador from Elizabeth to Francis II of France and his consort the unhappy Mary Queen of Scots. He was afterwards Ambassador to the Court of Scotland, and his fine tomb may be seen in the Church of St. Catherine Cree, Leadenhall Street, London. Throgmorton Street, the Mecca of stockbrokers, is named after this gentleman's town house. There are several early portraits on panels, including that of Henry VIII's last venture, "the Wyddowe Parr," who was a niece of Katherine, wife of Sir George Throckmorton, Knight. Some of these panel pictures afford admirable studies of the characteristic costumes and affectations of the periods in which they were painted. Thus, we have "Sir Robert Throckmorton," who died in 1580, with one hand resting on a skull—a gloomy form of piety that seems to have been equally popular among Papists and Protestants at this period. There are ladies in ruffs and fardingales, with marvellous erections of hair and jewels, dating from Elizabeth and James I; ladies with the simple ringlets and white satin of Charles I; *décolleté* dames of the Second Charles's reign; frail Court beauties, painted by Kneller and Lely; tender-eyed ladies of a Dutch William's time; square-jowled, bulgy-eyed Annean and Georgian Throckmortons, marvellously like the royalties of their day and generation. This is a standing problem in physiology, because the resemblance is not a mere matter of coiffure or dress, but a type of features and expression which would imply something more subtle and deep-seated than that sincerest of flattery—imitation.

Among the more modern portraits is one by Morani of Charles, Cardinal Acton, uncle to the celebrated publicist and man of letters Lord Acton, connected by family alliances with the Throckmortons. There are also several very interesting portraits of ladies of the house of Throckmorton in several generations, painted in the habits of the religious order to which they were vowed.

PHILIP MAINWARING JOHNSTON.

## HORSES IN THE WAR.—III

### THEIR WORK AT THE FRONT

IT is one thing seeing a horse or mule at the front—or shall I say, just at the back of the front?—in the bloom of good health, and quite another seeing him away down the lines of communication in the horse hospitals after he has "cracked up" on active service. The one is at his full strength, and the horse lover must feel heartened as he sees him pulling and hauling and contentedly plodding along war's way while still retaining the grit and stamina to do so. The other, which has begun to fail, is sick and sorry now. The machinery which has kept him keyed up as a category "A" individual runs down

with a suddenness which is incredible when once he has started to go the wrong way. He passes into sympathetic management and restful quarters, and in due course we will follow his career during this phase of temporary eclipse. For the present let us keep company with the war horse or mule which is doing his bit, for the healthy are as in the proportion of 9 to 1 to the sick.

Not long ago I asked a highly placed general officer whose business it is to know all about our animals in the war what impressed him most about the horses and mules at work in



THE PHLEGMATIC MULE—UNDER ENEMY SHELL-FIRE HE PLODS ON UNCONCERNED.

France, and he unhesitatingly replied: "Their good condition." Well, you have to see to believe, and I can honestly say that during the time I spent in the area of an army which is responsible for holding a certain part of the line, I did not see a single really unfit horse. A very few were probably showing signs of the daily grind and might have been qualifying for a rest and special feeding at the base hospitals

or convalescent horse depôts, but I did not see a case of debility or exhaustion still being retained at the front. And, of course, I saw many thousands of animals.

Why this should be so is still something of a mystery to me. I passed divisions either coming out of the line for rest or others going up. They seemed to be miles long as the guns, limbers, and transport rumbled and rattled over the pavé or newly metallised roads. Without one exception their animals were wonderfully good, and sometimes I thought the mules were better than the horses, and then I would incline to favour the horses rather than the mules. I visited here and there, and quite unannounced, horse-standings of some divisional ammunition column, Royal Field Artillery horses, heavy battery horses, and so on. Some were within shelters just off the roadside, others were among the ruins of a shell-blasted village. I looked first for thin and debilitated horses like some of the wrecks I had made acquaintance with away down the line at the hospitals. I asked for them when I could not find them, and was told that they did not exist. From where, then, did

the hospitals get their debility cases? I can only infer that the authorities concerned do realise that prompt evacuation of the sick and the worn is the best policy, and that to hang on to them at the front too long is to jeopardise the life of the horse or to delay his complete recovery so long that his maintenance while out of action becomes a doubtful proposition from a financial point of view.

Again I would emphasise what I wrote in a previous article, namely, that gunner officers, infantry transport officers, D.A.C. officers, and the N.C.O.s working under them have undoubtedly acquired from experience a far better understanding of certain first principles essential to proper management of horses in the field. The excellent results are what I saw. The horse advisers have obviously done well, and in that sense the experiment of establishing them has been proved a success, even though it is true that here and there intrusion was not exactly welcomed at the outset. And, of very real importance, I would specially note once more the great good following on the improved standings and the provision of shelter and screens, however rough, against wind and weather. It follows that a horse which must stand in mud and slime until his fetlocks disappear is not going to remain well long. He will develop foot trouble like laminitis, and "grease," the scourge of heavy, hairy-legged horses, is inevitable and must, indeed, cause great loss of usefulness. So you will understand what an advance has been made by the improvement of standings and how it has reacted on the animals.



MANY AND VARIED ARE THE USES OF HORSES ON ACTIVE SERVICE.



CROSSING THE YSER.

Of course, it is not always possible to provide what every man knows is desirable. Supposing an advance takes place to a depth of a mile or two, or even more, what then? Horses attached to the guns, horses in the transport with supplies, pack mules with food and ammunition for the infantry—they cannot remain where they were. They must make a corresponding move on, and then, of course, they have to desert their old shelters and enter a "No Man's Land." Such a land too! A land of horrors underfoot, the whole drab face of the earth nothing now but a racked and scourged wilderness of shuddering pits and water-laden shell holes. Then is the time when the stoutest-hearted horse and the plodding, uncomplaining "muley" are tried to "cracking" point. Their next bivouac is on the mud, which is the beginning of most troubles and the original cause of the streams that trickle week by week into the reception veterinary hospitals and those other hospitals that radiate from them.

I have heard folk at home, who have never seen these things and therefore do not know, express astonishment that horses and mules are still a vital force in the prosecution of modern warfare. The motor lorry, the steam wagon and the caterpillar tractors, they say, must have supplanted the horse. To some extent they certainly have done so, and it is a reminder that but for them no nation or assembly of nations could have carried on war on the gigantic scale it now is on had they all the horses in the world at their command. We have to remember that this is a unique war of enormous, unparalleled magnitude, and that horses are being employed on a scale which could never have been dreamed of.

They must still continue to do what motors cannot do until the time comes when war will be made wholly in the sky and under the earth.

In a previous article it was mentioned that at the time of writing there were in the neighbourhood of half a million horses and mules engaged with the British armies in France. In the month of February there were just on 100,000 with the particular army I visited—approximately three horses to one mule. At one time there were with this

army about 150,000 animals, every one being urgently required; but I need scarcely point out that any fluctuations must be a matter of adjustment of the Higher Command according to the general situation. Let me try and convey to the reader some idea of what the 100,000 were doing. First and foremost, the roads by day were a revelation. They were a revelation in the splendid control of the traffic, in the distinction made between fast and slow moving vehicles proceeding in the same direction.

Take the Field Artillery proceeding up the line in relief, or, perhaps, coming out for rest and a clean up, or movement elsewhere. There were the 18-pounder guns, the 60-pounder guns, a siege battery of still heavier guns of the "How" description, and with them all, their limbers and transport, light draught horses, mostly of American origin of that greatly admired Percheron-graded stamp—the stamp that has proved his excellence as a war horse in France over and over again—were in the lighter field gun, or there were teams of mules, pulling stoically and philosophically at their own gait as if nothing else in the world mattered. There were heavier Percheron-bred teams from the United States in the heavier guns, all in clean and hard condition, and then, perhaps, variety would be given to the long unending procession by the appearance on the scene of some howitzers of certain calibre, each with a team of ten heavy draught horses. A big gun of the kind would require more horses to move it in rough ground, but ten amply sufficed along the level, well laid roads behind this part of the line.

And what else depends for their movement on horse and mule haulage in the vast scheme of war-making as it is to-day? A divisional train would come along made up of General Service wagons, limbered wagons with heavy or light draught horses or mules, playing their part. An infantry transport might be bringing up the rear of a battalion on the march, and you would notice its wagons, its travelling kitchens smoking and emitting the savoury odours of the coming meal, its water carts, and its pack animals. Or, again, a machine gun company's transport of limbered wagons is on the move, and still another unit you recognise as the cable section of a signalling company. So all day and every day movement and push and drive go on, passing in different ways, but all intent on arriving at the same objective—the winning of the war.

Think, therefore, how much depends on the hundreds of thousands of equine helpers and the necessity of keeping them in health and strength. Most of them had still on their long winter coats, some were partially clipped, a few only were fully clipped; for there is a strong belief now among those who should know most that the complete clipping of war horses and mules at the beginning of winter is both a folly and a cruelty, since it must deprive them of the warmth provided by Nature. They do say that the losses of last winter and spring were assisted by the clipping which was general, and the laws of logic and nature would seem to confirm the theory. But it is a point on which the expert and the veterinary specialists do not quite agree, and, therefore, there has been something of a compromise during the 1917-18 winter with certainly vastly improved results.

The point made by the Veterinary Service, however, is quite intelligible. They say that the growing of a long coat hides mange and other serious skin troubles until it is too late, when eventually detected, to effect a speedy cure. Remount officers and others say that total clipping must cause great wastage from debility and death, and that it is better to clip, if at all, in the late autumn or very early winter. I am sure the veterinary officers agree that it is undesirable to deprive animals of their winter coats.

It, therefore, becomes a question of arriving at the lesser of two evils, and I am sure the compromise of the winter from which we are emerging has been the right and sane one.

The voices of the guns, which, some miles back, were but a murmur borne on the light wind of this late winter's day, had hardened into menace and hateful insistence as one drew nearer to what is so lightly and yet so significantly alluded to as "the line." At disjointed intervals the "heavies" were sending their screaming messengers of death away into the haze of the grey distance when I was taken by a chief horse master of a certain corps to look at the animals whose quarters were actually closest to our line. Here I saw field artillery horses in waiting; further away were the horses of a heavy battery; and then there were the horses of a D.A.C. section to see.

Here were examples of the horse shelters dotted all over the devastated country, and I need scarcely add that they were within the range of Boche gun fire. But they have what advantages of immunity can be derived from camouflage, while the men tending them live in huts similarly guarded or in dug-outs. Enemy visitations at nights from the air are not unexpected; but when our men think of danger in that way they have also the comforting knowledge that our brave boys in the air are "strafing" and doing as much and more o' nights behind the enemy lines.



TRENCH STABLING.  
Horses in a captured enemy communication trench.

And the war horse and his ever constant associate, the mule, just go on living their lives as unconcernedly as if the country were not scarred and burned so that its appearance is ugly and repulsive to a degree. They cannot discriminate between a village which is now dust and ruin and a church which was once a monument to civilisation and Christianity and is now but a skeleton of tottering walls standing in mute condemnation of human hate and savagery, and a village and church which stand whole and beautiful in the pale sun of this winter's day. Our dumb helpers may live in the ghastly ruins of what was once a prosperous town, where the cries of little children

at play mingled with the peaceful work-o'-day lives of their elders. Death and devastation made it a hell, the awful fires of which have not yet flickered out.

So when you go out beyond and survey the duck-loads tracks which lead to where our men are bearing the real burden and dangers of war, you think of our war beasts of burden that night after night traverse that foul and shell-torn country amid the loathsome vapours of the guns in performing their share in "carrying on." Can you wonder that there is real affection for the horse and mule, and that they are indeed the friends of man at this tremendous crisis?

A. SIDNEY GALTREY.

## LITERATURE

### A BOOK OF THE WEEK

**A Short History of France**, by Mary Duclaux (A. Mary F. Robinson). (T. Fisher Unwin.)

**M**ME. DUCLAUX has written her *Short History of France* a little on the lines of Green's "Short History of the English People," but it is vastly different, because she has infused into it her own character and individuality. In a little foreword she tells us that the book was written "neither for schoolboys nor historians (though I should indeed be proud if one or the other gave it their approval), but the class more strictly kept in view was that of cultivated and ignorant men and women to which I myself belong," and Mme. Duclaux adds the interesting note that she wishes "to offer them such a book as I wish someone would write for me about Russia, or Roumania, or Serbia, or even the United States." This is a hint which we hope young writers who know these countries will not overlook. Mme. Duclaux's History is, as might be expected, intimate and fascinating from the first chapter to the last. It is primarily the work of a poet; that is to say, it is suffused with sympathy and imagination. Wide reading has filled her mind with a vast store of thoughts as well as facts. It stretches over many years, as one cannot help recollecting when thinking of what she did first as Miss Robinson, then as Mme. Darmsteter, and finally of the previous works written over her present name.

France is the country of her adoption, all the more dear to her, perhaps, because of the bonds of friendship that in the old time united it with her native country. Her History at a first glance might appear to be *disjecta membra*, or at any rate only a series of brilliant essays; but a little consideration is enough to show that under the informal design is a logical and very fine method. What interests the present writer most is the grasp that Mme. Duclaux maintains upon the character of the people on whose annals her commentary runs. It needs but a slight knowledge of history to understand that a nation has an individuality as pronounced as that of any solitary human being. History deals with the maintenance and evolution of that character. We have but to take a survey of the most familiar countries to recognise how true this is, especially in the light of a war which has, so to speak, illuminated the national features. Our own England—hard, strong, tough—is sombre and yet full of gay moments, and we can discern this as the same through all the vicissitudes of fortune which it has experienced since the days of Alfred the Great to our own. Scotland, with its rugged force, endless perseverance, humour and recklessness of convention, is, despite all changes, the same to-day as it was when those typical Scottish figures were placed upon the battlements of Stirling Castle. Ireland, a country of dream and rebellion, of wit and fiery valour, has never changed in character. In the course of her History Mme. Duclaux gives even more striking examples of the persistence of national characteristics. The most striking is supplied by the ancient Roman Empire. She justifies the saying of Ausonius, "Rome is my religion," and she describes the extension of the Empire in terms that, slightly changed, might apply to the British Empire to-day.

The Roman system of conquest differed from that of most of the peoples of antiquity; it ennobled rather than humiliated. Rome imposed her rule on the vanquished; she neither enslaved nor exterminated. Her armies overwhelmed a country like a fertilising tide, and then retired to Rome, leaving behind them her social organisation, her municipal system, her culture, and her language. In exchange, she accorded to the towns included in her Empire the rights of Roman citizenship. The Gallo-Roman cities sent delegates to the metropolis, who voted there on questions of war and state and Empire on the same terms as other Roman citizens; while, in Gaul,

each town preserved a certain measure of Home Rule, choosing its own religious worship, ordaining its priests and regulating its ceremonies, electing its civic magistrates, administering its own estates and revenues, and deciding all questions of purely local interest.

Cæsar's acute summary of the German character holds good for all time. Thus "in the eyes of the Germans, the King was the sole High Priest, and, after Nature, War was the only god." Again, "War was their real idol; they had no fields, no gardens of their own. It was even forbidden to hedge round and till a private plot, lest the magic of possession dull a man's zest for war."

In order to work out the development of modern France the book is divided into four parts, beginning with the "Roman Tradition," which merges into "Feudal Society"; then we have "The Centralised Monarchy," and finally "The Revolution and Europe." In the course of the description of feudal society we have a fine though brief account of the Crusades between 1095 and 1270, in which, incidentally, the writer gives evidence of her store of curious out-of-the-way facts. We all know that the Crusaders introduced many Oriental words into the West. It is not such familiar knowledge that St. Louis brought back the ranunculus, the King of Navarre the damask rose, the damson or damask plum, the mulberry tree and the sugar cane. He also brought a few less welcome gifts, such as a variety of microbes and "a new kind of rat which is now our old black rat." The period produced many poets, but architecture surpassed literature.

After the poets came the master-builders. This Renaissance of the twelfth and thirteenth centuries is the heroic age of the French cathedrals. First a style of grandeur and simplicity, a transition from the pure Roman (or, as we say, Norman) architecture to early Gothic: long rows of tall pillars, cloistered columns in the clerestory overhead, slender towers of many stories: a great impression of nobility and charm. Then in the thirteenth century an ever-increasing richness, a huge mass of extraordinarily varied life, a people of statues (550 in the portal of Reims) and all living, smiling, praying, brooding, full of significance and truth; deep, cavernous porches, full of shadow; and the mystical rose of the central window, streaming with colour and symbolic imagery and wonderful light; vaulted naves and quires a hundred feet high, under whose solemn loftiness man sinks to an insect's stature. The real poetry of the French Middle Ages is built and carved in stone. But, in kind and style and period, its progress still keeps step with that of the written word; and the Cathedral of Laon is to the Cathedral of Reims just what the *Chanson de Roland*—restrained, severe, sublime—is to the poignant, mysterious, pathetic romance of *Tristan* or *Arthur*.

Mme. Duclaux is perhaps at her best in "the great, proud, pompous, glorious, august century of Louis XIV," when the first raw breath of Revolution was already in the air. The eighteenth century was a drop back into prose in France, as it was in England. It was the period when the Revolution was ripening to its culmination.

The pages which follow will be devoured by the reader; indeed, they are so intensely interesting that one page seems as equally deserving of comment as another. The story leaves off at the end of the eighteenth century. In the nineteenth century the fruit of France's long sojourn in the wilderness is found in a galaxy of powerful and celebrated men—Lamarck, Le Verrier, Claude Bernard, Pasteur and the rest.

Throughout, Mme. Duclaux never loses her grasp of the logical, elastic, chivalrous character of the country of her adoption. Her History is a drama in which the leading character is a work of great creation—or great understanding, if the phrase be more acceptable; while the minor personages who figure on the stage are finished and lifelike, seen through and through by the piercing insight of the writer. Mme. Duclaux has added a treasure to literature in her *Short History of France*.

## CORRESPONDENCE

### THE ROSEATE TERN.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I am sorry that my unfortunate way of expressing myself in my article on "The Roseate Tern" should have caused Mr. Bickerton to think that I doubted the correctness of his observation, for I do not for one moment. I can assure you that Mr. Bickerton is too good an observer for anyone to doubt what he says without the photographic evidence. The statement was so remarkable that I paid particular attention to see if the birds under my observation had the same peculiarity, and my friend, Mr. Jasper Atkinson, who accompanied me, had also, unknown to me, been looking for it, but with the same result.—R. FORTUNE.

### THE TRACK OF A HARE IN DEEP SNOW.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—When the last heavy snowstorm was over I found in the deep snow, which was from 6ins. to 8ins. deep, these unusual tracks made by a hare. The hare had been entirely covered by snow during the night. The first leap she made from her form was a short one. By the fourth leap the distance covered between each impress of the body, counting from where the snow was first pressed, was 6½ ft., often more, and never less. These bounds the hare kept up for a quarter of a mile. The impressions made in the deep snow were curious, as they were sharply pointed at both ends, proving that the short fore legs and the long hind ones must have landed forward and backward, and not, in the case of the hind legs, under the body, as they would with a horse or other animal. In the snapshot you will notice the track turning left handed up the hill. This track led to the thorn tree under which the hare had sheltered during the night.

The strength of the hare

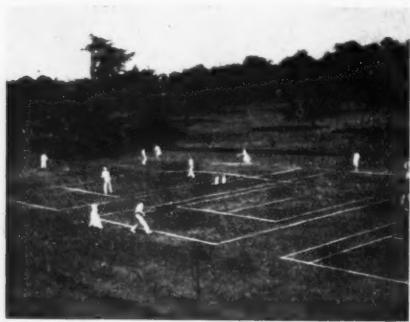
### LEAPS SIX AND A-HALF FEET LONG.

must have been great, for walking in such deep snow is tiring for a human being.—E. S. M.

### WOOD FIRE MAKING IN AFRICAN FASHION.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Most African travellers appreciate the comfort in camp of a wood fire, and, as wood fires have recently been discussed in COUNTRY LIFE, it may be of interest to describe the making of these by the native servants, whose methods are ingenious and useful. It gives one a great sense of luxury to sit in a camp chair after a tiring day and watch the blazing logs of a well made camp fire which is composed of several good big logs put endwise over the smaller wood to meet in the centre of the blaze; as these ends consume, the logs are pushed inwards so that the fire is replenished in a most easy manner, and in the same fashion can be reduced or put out all together by pulling the logs back from the middle and letting the blaze die out, which also means an economy of fuel, as by doing this the fire is extinguished very quickly. An African cook will place—if cooking—some good sized stones in the middle of his wood fire to support his pots and pans or his Dutch oven, and most excellent bread is often made in this invaluable article of a camp equipment over a wood fire. It is quite a pretty sight, too, watching the flames of a wood fire in the dark of a cool African evening, and they seem to provoke the memory of the watcher, for when an audience is there many good stories are generally forthcoming, even from usually silent folk. To watch a native make a fire by means of a wooden drill is an interesting, but by no means common, sight. I have seen one of the shy Anderobo tribe produce it quite quickly in this manner. Two pieces of wood are necessary, one of an oblong shape with a round hole in it is placed on the ground, when the native—while resting on his right knee—puts his left heel on the end of it to keep it firmly in position. The second piece of wood is a thin, round stick that fits exactly into the hole, and then is twirled very rapidly between the flat palm and fingers towards the top. Dried leaves or grass are placed near the



PEACE—JULY, 1914.



WAR—JULY, 1917.



AN AFRICAN WOOD FIRE.

[H. A' C. PENRUDDOCKE, F.R.G.S.]

### THE FRIAR'S COWL.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—Will you kindly name this Orchid? It grows freely all over the sandy soil in parts of Palestine, coming up with the first rains. The bulb is about 6ins. to 10ins. below the surface as a rule.—M. PORTAL.

[This is a hooded aroid (*Ardisia vulgaris*), appropriately known as the Friar's Cowl. It belongs to the same natural order as the arum and is a long way removed from the orchid family. One of its nearest relatives is *Ardisia triphyllum*, better known as "Jack-in-the-pulpit." The plant usually grows about 1 ft. in height. A native of the Mediterranean region (South Europe, North Africa and Palestine), it has many forms and names.—ED.]

### A PLANT FROM PALESTINE.

[TO THE EDITOR OF "COUNTRY LIFE."]

SIR,—I think it may possibly be of interest to your readers to see how an old Herefordshire lawn—which dates back to the troubled days of the Rebellion of 1645—is "doing its bit" in the present troublous times. The three photographs of the lawn at Canon-frome happen to have been taken from exactly the same spot under very varying times and circumstances.—JOHN HORTON (Colonel), High Sheriff of Herefordshire.



WAR—DECEMBER, 1917.

## MACHINERY NOTES FOR MODERN FARMERS

### SILOS.

HAVE been shown a letter from one of the largest manufacturers in England of wooden stave silos, which is very interesting as an expression of the views held by the firm concerning the merits of rival systems of construction. Extracts from the letter are as follow:

"In America some people maintain that wood silos are better than cement, but conditions out there are rather different to what they are here, as they have more severe winters. Sometimes silage in concrete silos will be found to freeze near the walls, but not so in the wood stave silo, because wood is a better non-conductor. The extremes of heat and cold do not affect us so much here, and there appears to be no ill effect on the silage in concrete block silos. Wood stave silos are quicker and easier to put up, but a concrete block silo is a more permanent structure."

### THE "BOON" MOTOR PLOUGH.

A comparatively recent addition to the growing list of manufacturers of purely British-built motor tractors and ploughs is the firm of Boon Tractors, Limited, Eagle Works, Warwick, which is marketing the Boon motor plough. This machine is of the type in which the plough or other cultivating implement is coupled up to the power unit; the power unit being controlled from the seat of the implement in use. The accompanying illustration shows the driver of the machine seated on the plough. The two tractor wheels are also the steering wheels. The wheels are 52ins. diameter and 9ins. wide, but can be fitted with extension rims, increasing the width to 15ins. The engine is a two-cylinder vertical model and develops about 20 h.p. Paraffin fuel can be used, but the engine must first be started and warmed up on petrol. The ignition is by high tension magneto.

There are two speeds forward and one reverse, and all gearing is enclosed and runs in oil. When in use for ploughing, one driving wheel is run in the furrow, and thus the machine is rendered almost self steering. The standard plough is one which is easily converted from two to three furrows or vice versa, and the width of furrow is 10ins. The plough is lifted or dropped at the end and beginning of each furrow by means of a mechanically operated clutch on the land



The "Boon" Motor Plough at work.

wheel which is worked by the driver's foot. The weight of the whole outfit, including a three-furrow plough, is stated to be about 10cwt.

### A NON-FOULING SPARKING PLUG.

Particulars have been received from the C.C. Sparking Plug Company, 145, Queen Victoria Street, E.C., of a type of plug manufactured by them which it is claimed will keep clean under practically any conditions, and will also render starting of the engine much easier. The claims appear to be well founded, and the idea is quite simple. The plug is supplied as a complete fitting, or an adapter can be purchased

enabling a standard plug to be utilised, and the illustration herewith shows an adapter into which a standard plug has been screwed.

The principle of the idea is to bring a part of each fuel charge to the cylinder *via* a small pipe into the plug fitting in such a way that it impinges upon the plug points and thus not only cleans them, but ensures fresh fuel at the point where the spark occurs. Of course, a non-return valve is used in connection with this subsidiary inlet pipe, and this and other details of construction are diagrammatically shown in the illustration.

The union to which one of the small pipes to the usual induction pipe is connected is seen at A, and, on the induction stroke, mixture passes through this union and through a narrow passage, indicated in dotted lines, through the casting. It then enters a vertical passage B, the lower end of which is closed by a mushroom-headed metal-faced valve C. This valve is normally kept against its seating, which is also of metal, by the helical spring D, the tension of which can be regulated by the lock-nuts at the top of the valve spindle.

On the suction stroke the valve C is drawn down from its seating, and the mixture entering through A travels down past the valve, through the lower hollow part of the casting, along the channel indicated by the dotted lines at E, and, finally, issues through the orifice F, where it is directed immediately on to the sparking plug points.

### THE QUESTION OF LABOUR AND THE USE OF POWER MACHINERY.

While working out a programme of operations on a large arable farm which is about to be equipped with motor power for every operation for which it can be economically employed, it has been brought home to me how very wrongly the majority of us look upon the question of labour costs.

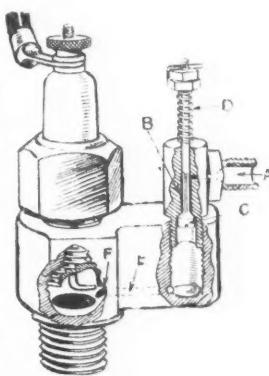
We are apt to think of labour at so much per hour, when really the only consideration that matters is cost per operation. Instead of wages going up, the position appears to be that power machinery (after allowing proper charges for upkeep and depreciation, etc.) is bringing wages down *per operation*, though perhaps doubled when judged by time rates.

Motor power on the farm is therefore likely to have a far-reaching effect and indirectly to benefit the community to a vastly greater degree than can be grasped from the phrase, "reduced cost of operations."

While reduced cost of operations might conceivably benefit the master only, the use of motor power on the farm will call for a superior class of workman entitled to higher rates of pay than the agricultural labourer of the past, and the master will be enabled to pay these higher rates and still be a gainer by the change. Of course, there always will be labourers pure and simple on the farm at labourers' wages, just as there are in all other productive enterprises, but it appears inevitable that power machinery will gradually create a class of farm mechanics which will eventually form the bulk of the workers on the farm.

The use of power machinery is being taken up by some farmers to offset the higher cost of present day labour, but I believe this new point is the wrong one. Power machinery should be adopted because it is a sound business proposition and reduces working costs, and therefore allows of the payment of higher wages to competent men and thereby increases the standard of living of the employees. The welfare of the employees benefits the employer to a far greater degree than can be analysed and set down in the yearly balance sheet.

PLOUGHSHARE.



A non-fouling sparking plug

## THE MARKETING OF GARDEN PRODUCE

LAST season the problem of increasing the output occupied most of the attention of the horticultural section of the Food Production Department. That is now so well in hand that much time and thought can be given to questions of distribution. Schemes for the marketing of garden produce are therefore being urged on apace. The economic distribution of the small grower's surplus is a difficult matter even in normal times, and is now complicated by transport shortage. The carrying power of railways is curtailed, the petrol supply very limited, and both the number and the working power of horses are affected by the amount and the quality of the food procurable for them. Yet it is imperative to increase our output from allotment and garden, as well as from farm, and to bring the rural producer into touch with the urban consumer.

Towards this end private endeavour did a good deal last year, and many successful, if isolated, efforts are on record. That is especially the case in counties where there is much fruit and vegetable growing with large industrial centres within or contiguous to their boundaries, such as Worcestershire. There Mrs. Berkeley of Spetchley, whose taste and capacity as a flower gardener were the theme of a special article in *COUNTRY LIFE* on July 15th, 1916, turned her attention to the fruit and vegetable sections, and solved the marketing problem most successfully, not only for herself but for many of her smaller neighbours. She acquired a 15.0 h.p. Belsize chassis and fitted it with a light lorry body. This she learnt to drive herself, and all last season, wet or fine, started at 8.45 a.m. on a regular round, taking in to the admirably managed Pershore Co-operative Market the produce of her own and two neighbouring villages. Therein houses of call had been established to which the villagers took their surplus so that it was packed, weighed and booked ready for her to take up; and where, on her return journey, she dropped a supply of empty baskets. Other villages were anxious to join. But as Mrs. Berkeley was acting alone and experimentally she thought it wise to test success modestly. But success came so fully and rapidly that a much larger area and a four-ton lorry with a paid chauffeur could certainly have been profitably established; and that will be the most usual form of road service when the plan, privately worked by Mrs. Berkeley and others, is developed and systematised by general organisation, such as will be found this season in Worcestershire, where it has grown out of such efforts as the Spetchley circuit and the larger combination of the Worcestershire Fruit and Vegetable Society, which had its nucleus on Lord Coventry's estate, his daughter, Lady Barbara Smith, being the moving spirit. Here jam making, fruit pulping and apple drying industries were already established, and a scheme of transport and marketing was soon evolved. Depôts were formed last year at Upton-on-Severn, Bromsgrove and Kempsey, and these are now being supplemented by others at Tenbury, Kidderminster and Worcester. An illustration is given showing Lady Barbara and her assistants loading up at one of the villages, horse transport being resorted to in this case. The excellent results of this endeavour are proved by the verdict of "Harrods" that the apple rings thence obtained preserved their colour better than any others.

What the Food Production Department is aiming at is to supplement such excellent individual efforts by a comprehensive network taking the counties as units. Central committees

will map out their areas, assist existing transport agencies and start new ones, found depôts and even markets, be in touch with the Government and its resources on the one hand and with the village committees on the other. Not only in Worcestershire is the whole ground now covered, Herefordshire is not behind. Nearly every village has got its committee for collecting, grading, weighing and booking produce at a receiving centre ready for transport, the whole of which has been undertaken on favourable terms by one of the county jam manufacturers, who is organising a route scheme, comprehensive, but not overlapping, to be mainly worked by four-ton lorries, and supplying various canning and jamming centres as well as fruit and vegetable markets. In Devon and Dorset, Hants and Bucks, the county organisation is well forward.

Kent especially has to perfect its distributing system, for it has enormously increased its production. The 1917 crop of fruit and vegetables amounted to 68,000 tons as against 40,000 tons in 1913. Every county should be endeavouring to come into line; and all who have influence and capacity, with some remaining time in which to exercise them, should help to speed up both the central committee and the humbler, but not less essential, ones in the villages. Success depends on the right appreciation and adoption of local circumstances and points of detail far too numerous and complex to enumerate here. I merely pick out two as indication of their drift and importance.

The system of cropping adopted at any place should not ignore the transport shortage. Villages near centres of population should, for their surplus over their home requirements, concentrate on the heavier and more perishable crops, such as potatoes and cauliflowers, while remote districts should aim at sending lighter and long keeping goods, such as onions, dried beans, fruits already canned or dried. In such localities both cottagers and farmers should feed pigs for bacon, rather than attempt the marketing of greens, potatoes and other heavy root crops. Too much attention cannot be directed to the output of onions and of pigs. Bacon and lard are priceless in these days of fat shortage. The onion is an important and popular food of which nine-tenths of the supply came oversea before the war. Now few can be shipped, and only a vast increase of area devoted to them wherever soil and climate are favourable can prevent a most undesirable dearth. All cottagers should aim at producing a surplus beyond their own need.

But to make such surplus marketable the second point that I am now mentioning must be considered. The village committees can only profitably deal with the small surpluses of individual cottagers if the cottagers have previously settled on growing the same varieties. The market thinks poorly of, and pays low for, mixed and haphazard lots of both fruit and vegetables. But if they are of one variety, a whole lot of tiny parcels can be packed together at the village depôt and the best price obtained when transported to the distant market. This result is being obtained where the local committee or production society has followed the economic system of procuring vegetable seed for distribution in their area, strictly limiting the varieties while not omitting to consult individual taste and climatic conditions.

Here, truly, is scope for the most extensive co-operative effort. From the Minister in charge of production to the tiller of the smallest allotment there is thought and work needed. But with right co-ordination and energy our garden grounds may become a most important element in the triumph of our war aims.

H. AVRAY TIPPING.



MRS. BERKELEY DRIVING HER LORRY.



LADY BARBARA SMITH COLLECTING FOR MARKET.